AMENDMENTS TO CLAIMS

The following listing of claims will replace all prior versions and listings of the claims in the above-identified application:

Listing of Claims:

Claim 1 (cancelled).

Claim 2 (currently amended): A data packet multi-access communicating method comprising steps of:

receiving a transmission demand from each of a plurality of mobile stations at a base station;

determining a maximum transmission rate for each said mobile station by taking account of radio wave propagation condition under which each said mobile station is presently situated, a data size associated with each said transmission demand, and a transmission error ~~ratio~~ rate determined via a cyclic redundancy check (CRC) for each said mobile station, and determining a priority order of each said mobile station at said base station based on the radio wave propagation condition, the data size and the transmission error rate of each said mobile station; and

notifying each said mobile station of said maximum transmission rate determined at said base station.

Claim 3 (currently amended): A data packet multi-access communicating method comprising steps of:

transmitting a data size and a utilization demand of a maximum rate to a base station for transmitting continuous data in large quantities from each of a plurality of mobile stations;

receiving said data size and said utilization demand from each said mobile station at said base station;

determining a maximum transmission rate for each said mobile station by taking account of radio wave propagation condition under which each said mobile station is presently situated, said data size associated with said utilization demand for each said mobile station, and a transmission error ~~ratio~~ rate determined via cyclic redundancy check (CRC) for each said mobile station; ~~and~~

determining a priority order of each said mobile station at said base station based on based on the radio wave propagation condition, the data size and the transmission error rate of each said mobile station;

notifying each said mobile station of said maximum transmission rate determined at said base station; and

variably changing a transmission rate according to said maximum transmission rate indicated by said base station ~~in~~ at each said mobile station ~~side~~.

Claim 4 (cancelled).

Claim 5 (currently amended): A receiving and transmitting apparatus at a base station comprising:

a transmission condition detecting means for monitoring transmission condition of a plurality of channels and determining quality of the transmission condition of each channel;

a transmission rate detecting means for detecting a transmission rate demanded by each channel and its error ~~ratio~~ rate;

a maximum rate control information determining means for determining a maximum transmission rate of each channel by taking account of results of said transmission condition detecting means and transmission rate detecting means, and an indication from an operation of other user; and

notifying each channel of the maximum transmission rate determined by the maximum rate control information determining means.

Claims 6-7 (cancelled)

Claims 8 (currently amended): A receiving and transmitting apparatus at a base station according to claim 5, the receiving and transmitting apparatus including:

a demodulation device corresponding to a channel for demodulating a signal received on said channel through a transmitting and receiving antenna and a radio transmitting and receiving device, to which a plurality of channels are multiplexed;

a variable rate communication path decoding device for conducting communication path decoding processing in accordance with a transmission rate, including reconstruction and error correction decoding of a frame and matching of a transmission rate, from a received signal which is demodulated and is slotted to a radio signal transmission unit in said demodulation device;

a transmission condition detecting device for detecting radio wave propagation condition and transmission condition of each communication path, based on an output signal demodulated in said demodulation device;

a transmission rate detecting device for detecting a transmission rate of each channel and its error ~~ratio~~ rate determined via cyclic redundancy check (CRC) for each channel, based on an output signal decoded in said variable rate communication path decoding device; and

a maximum rate control information determining device for determining maximum rate control information of each channel, based on an output signal detected by said transmission condition detecting device and transmission rate detecting device.

Claim 9 (cancelled).

Claim 10 (currently amended): A data packet multi-access communicating method comprising steps of:

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receiving a transmission demand from each of a plurality of mobile stations at a base station;

determining a maximum transmission rate for each said mobile ~~station~~ stations according to radio wave propagation condition under which each said mobile station is presently situated, a transmission error ~~ratio~~ rate determined via a cyclic redundancy check (CRC) for each said mobile station, and determining a priority order of each said mobile station at said base station based on the radio wave propagation condition and the transmission error rate; and

notifying each said mobile station of said maximum transmission rate determined at said base station.

Claim 11 (withdrawn): A transmitting apparatus on a mobile station side in a system for receiving a transmission demand from each mobile station to decide a

maximum rate, said transmitting apparatus on a mobile station side ~~characterized in~~ comprising:

variable rate communication path coding means for coding an information signal at a transmission rate in accordance with an information content;

modulation means for modulating a signal at transmission power in accordance with said transmission rate; and

maximum rate controlling means for controlling a maximum value of the transmission rate to said variable rate communication path coding means, in accordance with maximum rate information determined by the system by taking account of transmission condition and a transmission rate of each channel.

Claim 12 (withdrawn): A transmitting apparatus on a mobile station side in a system for receiving a transmission demand from each mobile station to decide a maximum up rate, said transmitting apparatus on a mobile station side characterized in comprising:

maximum rate controlling means for controlling a maximum value of a transmission rate according to maximum rate information determined by the system by taking account of transmission condition and the transmission rate of each channel;

variable rate communication path coding means for coding an information signal at the transmission rate in accordance with a maximum value of said controlled transmission rate and an information content; and

modulation means for modulating signals with sending power responding to said transmission rate.

Claim 13 (withdrawn): A transmitting apparatus on a mobile station side in a system for receiving a transmission demand from each mobile station to decide a maximum up rate, said transmitting apparatus on a mobile station side characterized in comprising:

maximum rate controlling means for controlling a maximum value of a transmission rate according to maximum rate information determined by the system by taking account of transmission condition and the transmission rate of each channel;

variable rate communication path coding means for coding an information signal at the transmission rate in accordance with an information content; and

sending power control section for controlling sending power based on a maximum value of said transmission rate; and

modulation means for varying a modulation technique of signals based on the sending power controlled in said sending power control section.

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Claim 14 (withdrawn): A transmitting apparatus on a mobile station side in a system for receiving a transmission demand from each mobile station to decide a maximum up rate, said transmitting apparatus on a-mobile station side characterized in comprising:

maximum rate controlling means for controlling a maximum value of a transmission rate according to maximum rate information determined by the system by taking account of transmission condition and the transmission rate of each channel;

variable rate communication path coding means for coding an information signal at the transmission rate in accordance with a maximum value of said controlled transmission rate and an information content;

sending power control section for controlling sending power based on a maximum value of said transmission rate; and

modulation means for varying a modulation technique of signals based on the sending power controlled in said sending power control section.